
NOTES FROM THE FIELD

Hurricane Sandy: Interagency In-transit Visibility

In December 2012, the LLIS.gov team conducted data collection and analysis related to Hurricane Sandy response and recovery operations in New York and New Jersey. The team observed several challenges related to the fuel shortage and power restoration efforts FEMA, emergency responders, retail, and the general public experienced. This document describes those challenges.

DESCRIPTION

On Monday, October 29, 2012, Hurricane Sandy made landfall near Atlantic City, New Jersey, pushing a massive storm surge to shore and generating winds to up to 75 miles per hour. Sandy caused record storm surges, significant flooding, and extensive wind damage. Millions of people were left without power and hundreds were displaced along the East Coast from North Carolina to Maine.



Hurricane Sandy (Source: FEMA)

The Federal Emergency Management Agency (FEMA) coordinated with partner agencies and organizations in a variety of ways to support impacted States. This included delivering resources and developing innovative solutions to address fuel shortages and power outages. Lack and/or limited access to power at times hindered responders' ability to carry out needed operations. Fuel from terminals, pipelines, distribution centers, and gas stations was available but not retrievable without power. As a result, first response personnel in some cases had to perform emergency operations with limited fuel supply.

Challenge

At the onset of the response, Federal agencies established partnerships with many relevant public and private sector organizations in an effort to clearly identify needs and requirements. However, agencies at times could not gather accurate, real-time information to match resources and capabilities to these needs and requirements. In particular, FEMA at times lacked information related to fuel and energy availability in some impacted areas.

Fuel Shortage

Following Sandy, agencies at all levels of government could not gather and share information on local gas shortage, status of fuel supplies, and on whether gas stations were open and gas was available.

The lack of clear information hindered the ability of all appropriate agencies to deploy fuel and generators in an effective and efficient manner.

To determine the status of gas stations in the disaster area, FEMA partnered with Google and the National Business Emergency Operations Center (NBEOC) to consolidate crowdsourced data sets and create a Google Crisis Response map. In addition, the White House Office of Science and Technology Policy worked with a group of students to populate the map. These students used social media extensively to collect data on gas stations. The Google Crisis Map (Figure 2) contained 50 layers for 30 organizations and had 15 million unique visits.

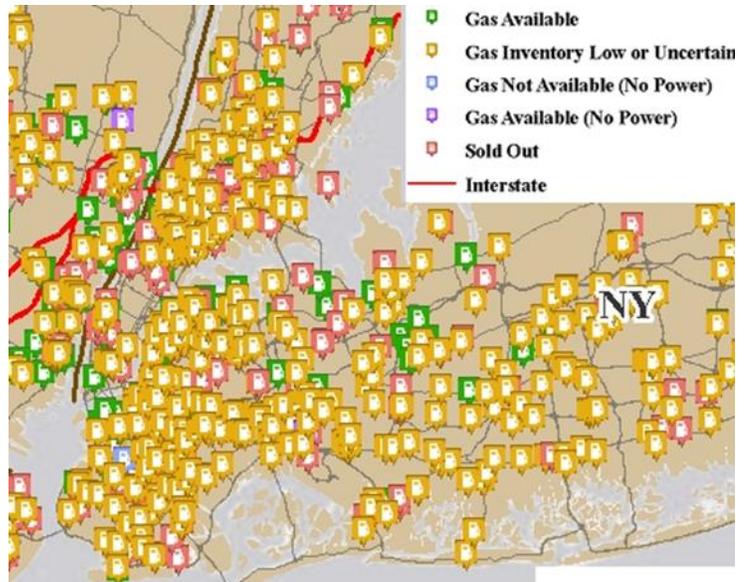


Figure 2: FEMA Google Crisis Response Map

Energy Restoration

Hurricane Sandy impacted the energy delivery infrastructure throughout the mid-Atlantic region, leaving over 8.5 million customers without power. To address this challenge, FEMA and the Department of Energy established the Energy Restoration Task Force. The Task Force brought together 13 Federal departments and agencies and private-sector representatives to increase the coordination of power restoration efforts and minimize the bureaucratic process.

The taskforce worked with critical infrastructure owners and operators to bridge situational awareness gaps, address power restoration concerns, transportation logistics, and status of generators. The Task Force also partnered with the Department of Defense U.S. Transportation Command to airlift 229 power-restoration vehicles; deploy 487 personnel to help power restoration efforts in New York and New Jersey; and provide 9.3 million gallons of fuel and coordinate fuel distribution points for first responders. Additionally, Electric Utilities deployed over 70,000 utility workers to the impacted areas after activating mutual aid agreements.

Energy Restoration Task Force Membership



Outcomes

The fuel assistance and power restoration efforts demonstrated the need for a strong public-private partnership during large-scale, mass casualty events. During Sandy, FEMA and partner organizations established effective informal information sharing mechanisms. These

mechanisms improved situational awareness at the Federal, state, local, and private-sector level. In addition, the Energy Restoration Task Force, operating as an ad hoc entity during the Sandy response, was able to track and identify issues involving fuel assistance and delivery in a comprehensive and systematic way.

RESOURCES

U.S. Department of Energy. *Overview of Response to Hurricane Sandy-Nor'easter and Recommendations for Improvement*. 26 Feb 2013.

http://energy.gov/sites/prod/files/2013/05/f0/DOE_Overview_Response-Sandy-Noreaster_Final.pdf

U.S. Department of Energy. *Helping Local Officials Address Fuel Shortages*. 03 Nov 2012.

http://www.eia.gov/special/disruptions/hurricane/sandy/gasoline_updates.cfm

U.S. Energy Information Administration. *New York City Metropolitan Area Retail Motor Gasoline Supply Report*. 09 Nov 2012.

http://www.eia.gov/special/disruptions/hurricane/sandy/gasoline_updates.cfm

U.S. Department of Defense. *DOD Gets Energy Department Fuel to Aid Superstorm Relief*. 02 Nov 2012.

www.defense.gov/news/newsarticle.aspx?id=118429

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